

Listing of Claims:

1. (Currently Amended) A cordless microscope comprising:
a stage for holding specimens to be viewed; and
a light source assembly for illuminating the stage, the light source assembly including -
a circuit board, and
one or more ~~a plurality of~~ LEDs mounted on the circuit board for projecting light toward the stage, wherein at least a portion of the light source assembly is externally exposed, and the light source ~~is~~ assembly is removable and replaceable independently of the stage.
2. (Currently Amended) The cordless microscope as set forth in claim 1, the light source assembly further including a first connector mounted on the circuit board, electrically connected with the one or more LEDs, and configured for connecting to a battery for powering the one or more LEDs.
3. (Original) The cordless microscope as set forth in claim 1, wherein the light source assembly includes 4 LEDs.

4. (Currently Amended) The cordless microscope as set forth in claim 2, the light source assembly further including a second connector mounted on the circuit board and configured for connecting to a switch so as to electrically connect the switch between the battery and the one or more LEDs for switching the one or more LEDs between on and off states.

5. (Original) The cordless microscope as set forth in claim 4, the light source assembly further including a third connector configured for connecting to a battery recharger for recharging the battery.

6. (Currently Amended) The cordless microscope as set forth in claim 1, wherein the structure of the one or more LEDs produces a highly-focused angle of illumination so that most of the light from the one or more LEDs is projected upwardly toward the stage.

7-11. (Cancelled)

12. (Currently Amended) A light source assembly for use in a microscope, the light source assembly comprising:

a circuit board,

one or more ~~a plurality of~~ LEDs mounted on the circuit board for projecting light

upwardly from the circuit board, wherein the structure of the one or more LEDs produces a highly-focused angle of illumination so that most of the light from the one or more LEDs is projected upwardly; ~~and~~

a first connector mounted on or coupled with the circuit board, electrically connected with the one or more LEDs, and configured for removably connecting to a battery for powering the one or more LEDs; and

a housing substantially enclosing the circuit board, the one or more LEDs, and the first connector, wherein the housing is adapted to removably attach to the microscope so that at least a portion of the light source assembly is externally exposed.

13. (Currently Amended) The light source assembly as set forth in claim 12, further including a second connector mounted on or coupled with the circuit board and configured for removably connecting to a switch so as to electrically connect the switch between the battery and the one or more LEDs for switching the one or more LEDs between on and off states.

14. (Original) The light source assembly as set forth in claim 12, wherein the circuit board is circular in shape.

15. (Original) The light source assembly as set forth in claim 12, wherein 4 LEDs are mounted on the circuit board.

16. (Currently Amended) The light source assembly as set forth in claim 12, wherein the circuit board is coated with a reflective material to reflect light emitted from the one or more LEDs.

17. (Original) The light source assembly as set forth in claim 13, further including a third connector configured for connecting to a battery recharger for recharging the battery.

18–23. (Cancelled)

24. (Currently Amended) A cordless microscope comprising:

a stage for holding specimens to be viewed;

a circuit board; and

a light source assembly for illuminating the stage, the light source assembly

including -

at least one light source arranged on the circuit board and operable to project

light toward the stage,

a first connector removably electrically connected with the at least one light

source and configured for connecting to a power source for powering

the at least one ~~one~~ light source,

a second connector configured for removably connecting to a switch so as to

electrically connect the switch between the power source and the at

least one light source for switching the at least one light source

between on and off states, and

a third connector configured for removably connecting to a power source

recharger for recharging the power source,

wherein the light source assembly is removable and replaceable independently of

the stage.

25. (Previously Presented) The cordless microscope as set forth in claim 24,
wherein the light source is a light emitting diode.

26. (Currently Amended) The cordless microscope as set forth in claim 24 ~~claim 26~~, wherein the power source is at least one battery.

27. (Currently Amended) A cordless microscope comprising:

- a stand;
- a stage supported by the stand for holding specimens to be viewed;
- an objective lens supported by the stand for magnifying an image of a specimen on the stage;
- an eyepiece lens supported by the stand and coupled with the objective lens for further magnifying the image of the specimen and for permitting a user to view the image;
- a circuit board; and
- a light source assembly for illuminating the stage, the light source assembly including -
 - at least one light source arranged on the circuit board and operable to project light toward the stage, wherein the at least one light source emits white light, and
 - a connector electrically connected with the at least one light source and configured for connecting to a power source for powering the at least one light source, wherein the light source assembly is operable to provide over forty hours of continuous operation of the cordless microscope,

wherein the light source assembly is removable and replaceable independently of the stage.

28. (Previously Presented) The cordless microscope as claimed in claim 27, wherein the light source is a light emitting diode.

29. (Previously Presented) The cordless microscope as claimed in claim 27, wherein the at least one light source is operable to provide over five thousand millicandellas of illumination.